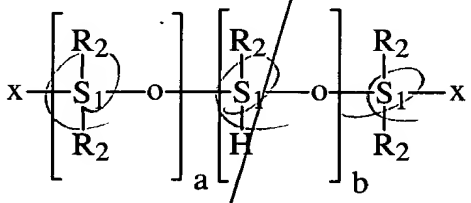
D1

(1) the synthons hydrosilylated with the polyorganohydrosiloxane are different or identical, comprising at least one hydrocarbon-comprising ring in which is included at least one oxygen atom,

(2) said hydrosilylation reaction is carried out in the presence of a heterogeneous catalytic composition comprising a metal selected from the group consisting of cobalt, rhodium, ruthenium, platinum and nickel deposited on an inert support, said inert support selected from the group consisting of carbon black, charcoal, alumina, silicate and barium oxide, and

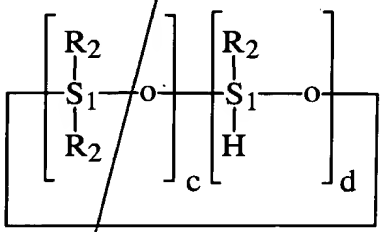
(3) the polyorganohydrosiloxane contains only SiH groups and is linear or cyclic and has the mean formulae:

SUB E1



(XVI)

and/or



(XVII)

in which:

- the symbols R2 are identical or different and correspond to a monovalent hydrocarbon-comprising radical chosen from the phenyl radical and linear or branched alkyl radicals having from 1 to 6 carbon atoms;
- the symbols x are identical or different and correspond to a monovalent radical chosen from R_2, a hydrogen atom, a methoxy radical and an ethoxy radical;
- a and b are integers or fractions, such that:

  - $0 < a \leq 200$,

  - $0 \leq b < 200$,

  - and at least one of the two X groups corresponds to the hydrogen radical if $b = 0$,

  - $5 < a + b \leq 200$;

- c and d are integers or fractions, such that:

  - $0 < c < 5$,

  - $1 < d < 10$,

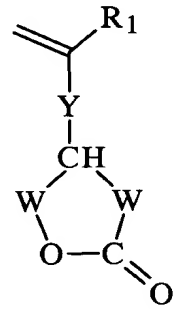
  - $3 < a + b < 10$.

23. Preparation process according to claim 22, wherein the functionalized oils obtained are colorless and prepared in the presence of said catalytic composition, the inert support for which is carbon black.

D1

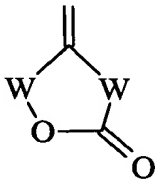
24. Process according to claim 22, wherein the synthons comprise at least one hydrocarbon-comprising ring in which is included an oxygen atom, the synthons having the formula:

■ (1)



(I)

and/or



(II)

in which:

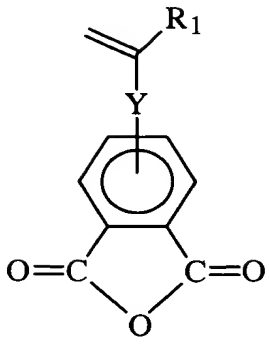
■ the symbols W are identical or different and correspond to a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms, it being possible for one of the symbols W to be a free valency;

■ the symbol Y corresponds to a free valency or a divalent radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms which can comprise a heteroatom;

■ the symbol R_1 corresponds to a hydrogen atom or monovalent hydrocarbon-comprising radical comprising linear or branched alkyl radicals having from 1 to 12 carbon atoms;

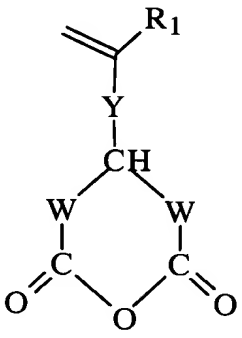
D1

■ (2)



(III)

and/or



(IV)

SUB E2

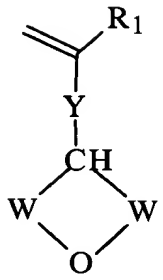
in which:

■ the symbols W are identical or different and correspond to a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms, it being possible for one of the symbols W to be a free valency;

■ the symbol Y corresponds to a free valency or a divalent radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms which can comprise a heteroatom;

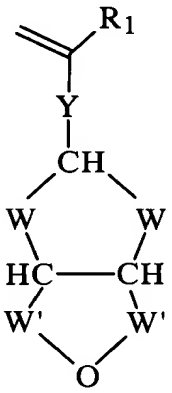
■ the symbol R_1 corresponds to a hydrogen atom or monovalent hydrocarbon-comprising radical comprising linear or branched alkyl radicals having from 1 to 12 carbon atoms;

■ (3) D1



(V)

and/or



(VI)

Sub E2

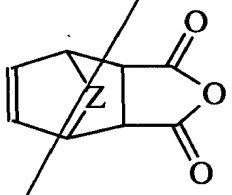
in which:

■ the symbols W are identical or different and correspond to a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms which can comprise at least one hydroxyl functional group, it being possible for one of the symbols W to be a free valency for (V) and it being possible for both symbols W simultaneously to be a free valency for (VI);

■ the symbols W' are identical or different and correspond to a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms, it being possible for at least one of the symbols W' to be a free valency;

■ the symbol Y corresponds to a free valency or a divalent radical comprising linear or branched alkylene radicals having from 1 to 12 carbon atoms which can comprise a heteroatom;

- the symbol R_1 corresponds to a hydrogen atom or monovalent hydrocarbon-comprising radical comprising linear or branched alkyl radicals having from 1 to 12 carbon atoms; and
- (4)



(VII)

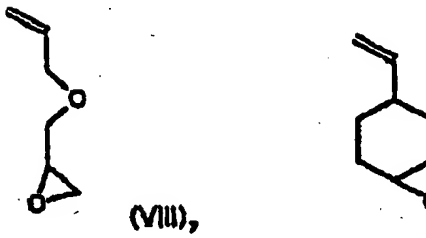
in which:

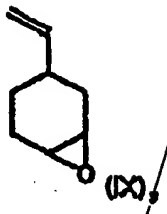
- the symbols W are identical or different and correspond to a free valency or a divalent hydrocarbon-comprising radical comprising linear or branched alkylene radicals having from 1 to 2 carbon atoms;
- the symbol Z corresponds to a divalent radical comprising a carbon atom or a heteroatom.

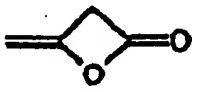
25. Process according to claim 24, wherein the hydrocarbon-comprising ring of the synthons comprises at most 8 atoms in said ring.

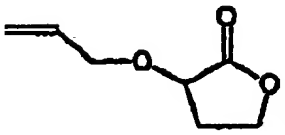
26. Process according to claim 24, wherein the synthons comprise a hydrocarbon-comprising ring in which is included an oxygen atom.

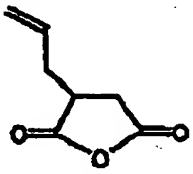
27. Process according to claim 24, wherein the synthon has the formula:

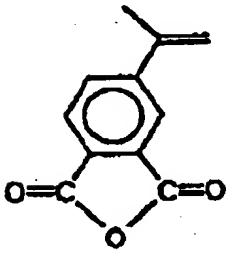

(VIII),

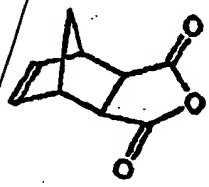

(IX),

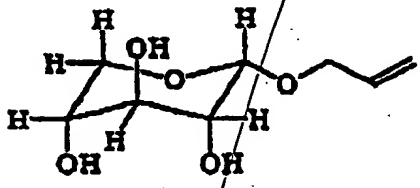

(X),


(XI),


(XII),


(XIII),


(XIV) and


(XV).

28. Process according to claim 24, wherein the synthons which react with the polyorganohydrosiloxane are identical synthons.

29. Process according to claim 22, wherein the polyorganohydrosiloxane/synthons molar ratio is between 0.01 and 100.

30. Process according to claim 22, wherein the amount of metal is between 0.1% and 5% with respect to the weight of the inert support.

31. Process according to claim 22, wherein the amount of metal in the catalytic composition is between 1 and 1000 ppm with respect to the weight of the polyorganohydrosiloxane.

32. Process according to claim 22, wherein the metal of the catalytic composition is platinum.

33. Process according to claim 22, wherein the polyorganohydrosiloxane and the synthon pass over or through a stationary bed of the catalytic composition.

34. Silicone oil comprising synthons having a hydrocarbon-comprising ring having an oxygen atom, obtained by the process of Claim 22.

35. Silicone oil comprising synthons including a hydrocarbon-comprising ring in which is included an oxygen atom, obtained by the process according to Claim 22.

36. Silicone oil comprising synthons of formula (IX), obtained by the process according to Claim 27.

37. A process for the preparation of an antiadhesion product for paper, glass, plastic and/or metal comprising forming the antiadhesion product from components comprising using the silicone oil according to claim 34.

38. A process of the preparation of varnishes, inks and/or coatings comprising forming a vanishing ink and/or coating from components comprising the silicone oil according to claim 34.

39. Process according to claim 22, comprising the following stages:

(a) introducing an amount of 5 to 5000 ppm of heterogeneous catalytic composition with respect to the total mass of the reactants under an inert gas into the reaction mixture;

(b) introducing the synthon into the reaction mixture;

(c) heating said mixture to a temperature of between 25°C and 200°C;

(d) subsequently introducing the polyorganohydrosiloxane over a period of time of between 0 and 24 hours, the synthon/polyorganohydrosiloxane molar ratio being between 1 and 1.10;

(e) filtering the reaction mass in order to separate the heterogeneous catalytic composition and the functionalized silicone oil; and

D1

(f) finally devolatilizing the functionalized silicone oil.

40. Process according to claim 39, characterized in that the polyorganohydrosiloxane and the synthon react in the reaction mixture in the absence of solvent.

SUB B5

41. A process for the preparation of functionalized silicone oils which are stable and nonturbid, comprising providing a heterogeneous catalytic composition comprising a metal selected from the group consisting of cobalt, rhodium, ruthenium, platinum and nickel deposited on an inert support, said inert support being selected from the group consisting of carbon black, charcoal, alumina, silicate and barium oxide and forming functionalized silicone oils.

42. The process according to claim 40, wherein the inert support of the heteroeneous catalytic composition is carbon black.